FIG.1

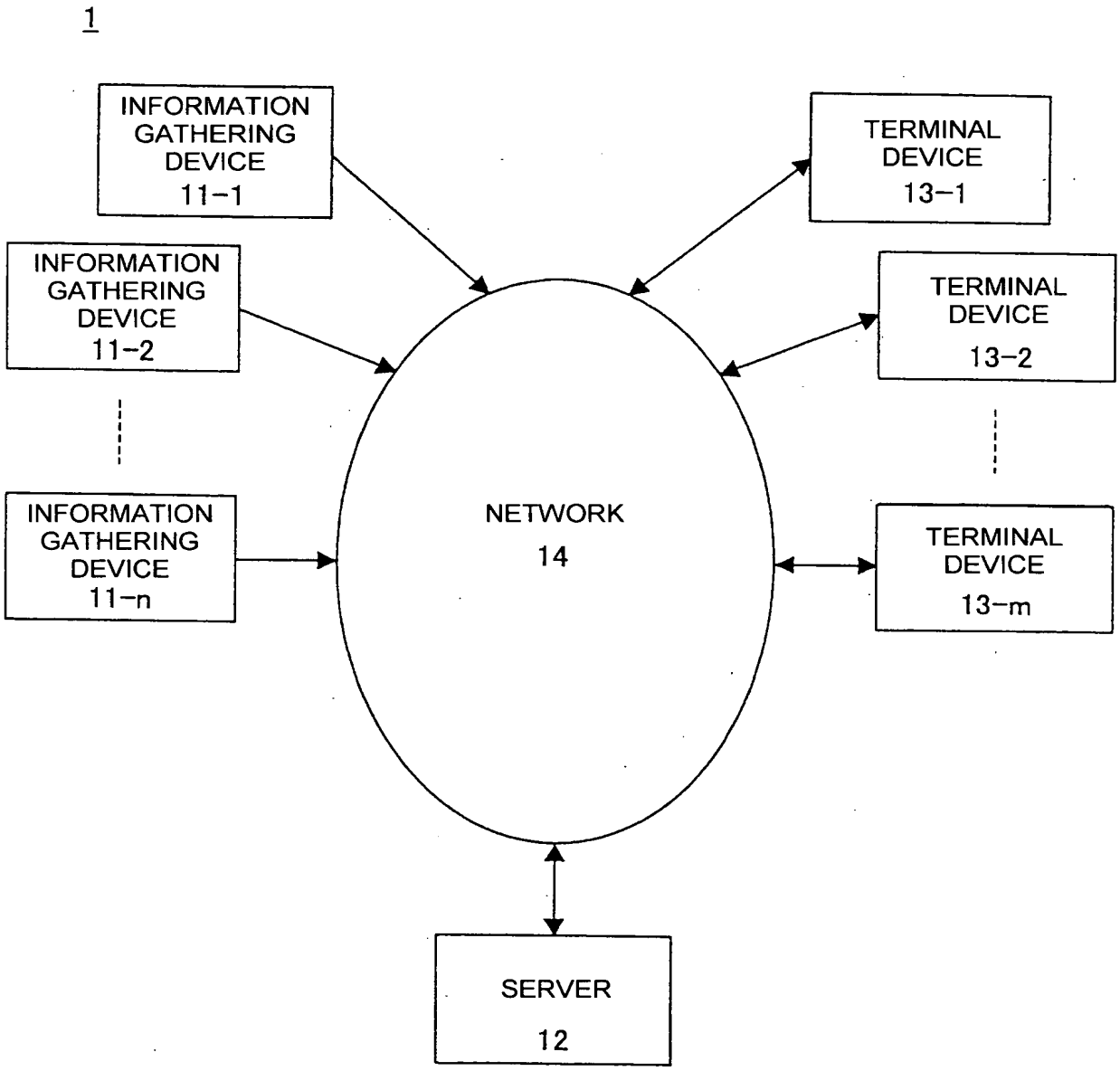

1
INFORMATION GATHERING DEVICE 11-1
INFORMATION GATHERING DEVICE 11-2
INFORMATION GATHERING DEVICE 11-n
NETWORK 14
SERVER 12
TERMINAL DEVICE 13-1
TERMINAL DEVICE 13-2
TERMINAL DEVICE 13-m

FIG.2

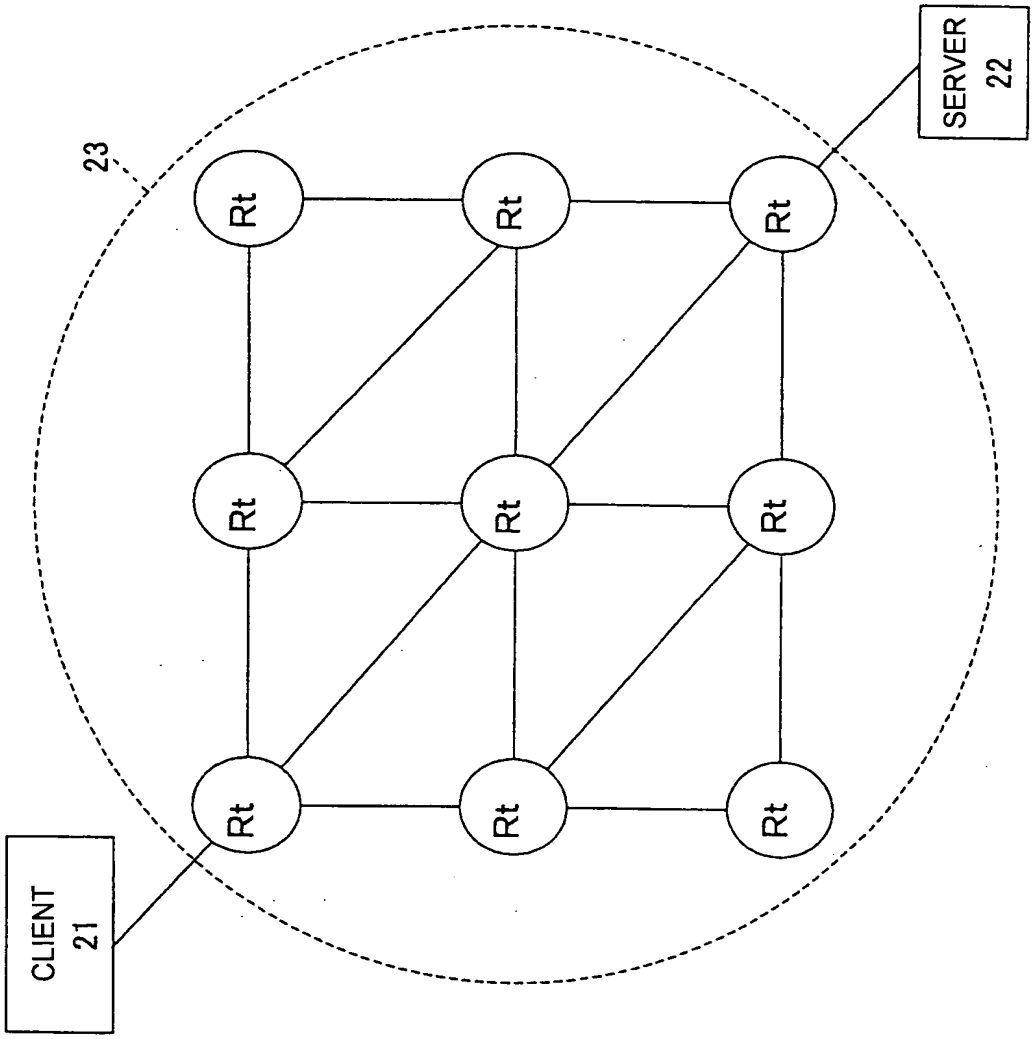


FIG.3

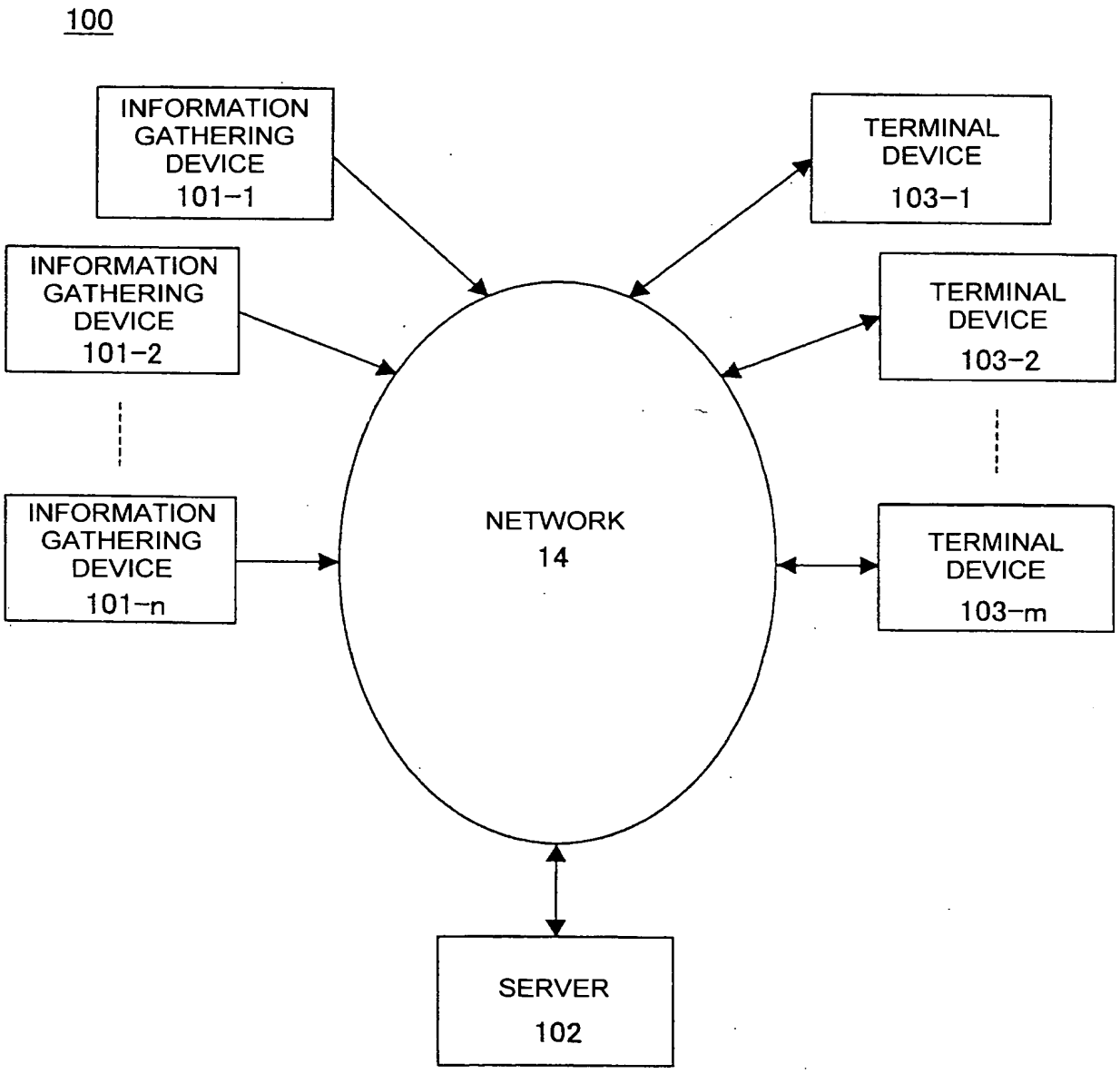

100
INFORMATION GATHERING DEVICE 101-1
INFORMATION GATHERING DEVICE 101-2
INFORMATION GATHERING DEVICE 101-n
NETWORK 14
TERMINAL DEVICE 103-1
TERMINAL DEVICE 103-2
TERMINAL DEVICE 103-m
SERVER 102

FIG.4

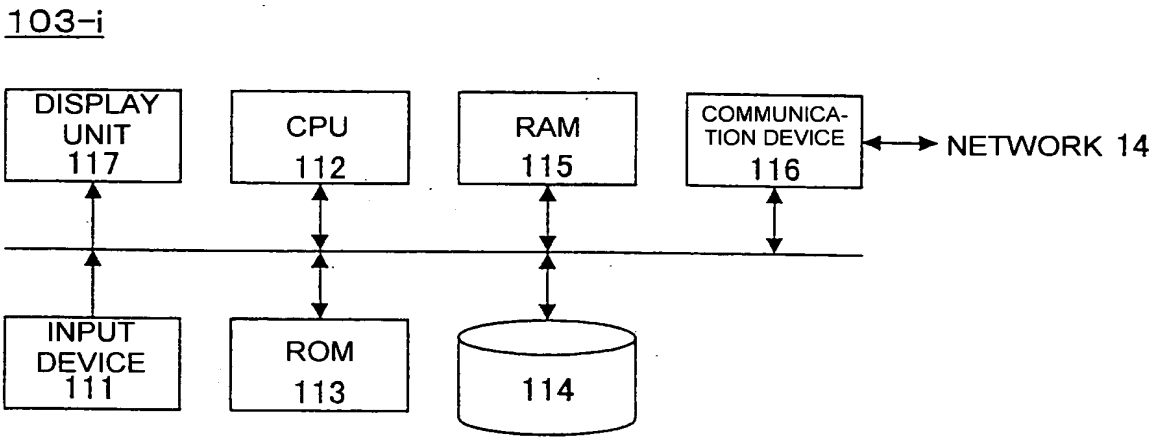

103-i
DISPLAY UNIT 117
CPU 112
RAM 115
COMMUNICATION DEVICE 116
NETWORK 14
INPUT DEVICE 111
ROM 113
114

FIG.5

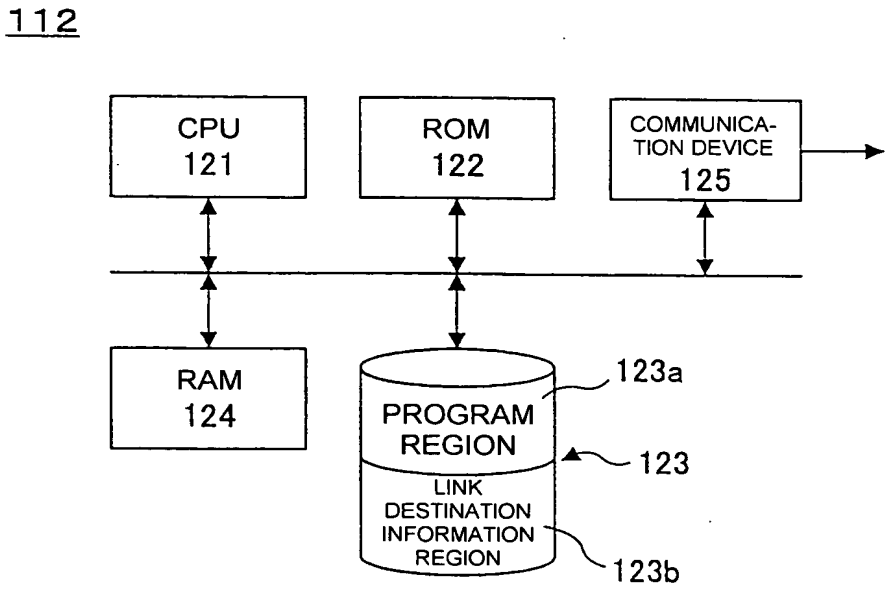

112
CPU 121
ROM 122
COMMUNICATION DEVICE 125
RAM 124
PROGRAM REGION
123a
123
LINK DESTINATION INFORMATION REGION
123b

FIG.6

SELECTION CHANNEL	LINK DESTINATION ADDRESS
S 1	A 1
S 2	A 2
:	:
S k	A k

FIG.7

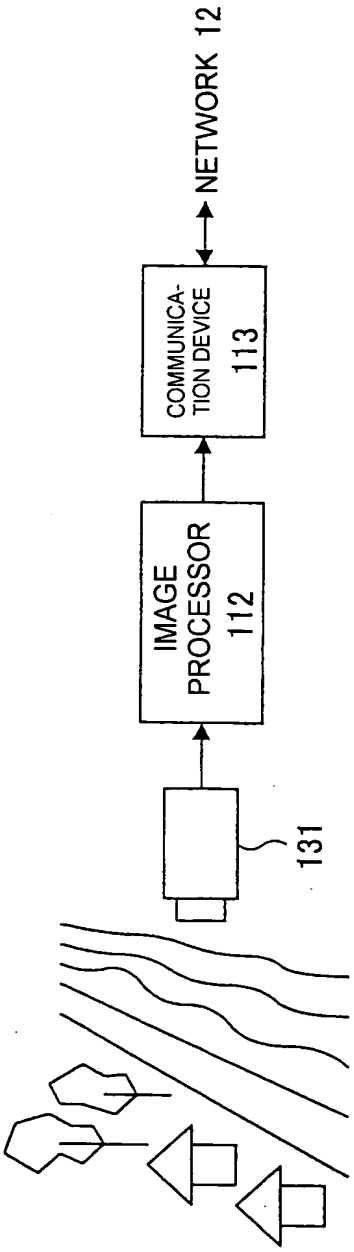

NETWORK 12
COMMUNICA-TION DEVICE 113
IMAGE PROCESSOR 112
131

FIG.8

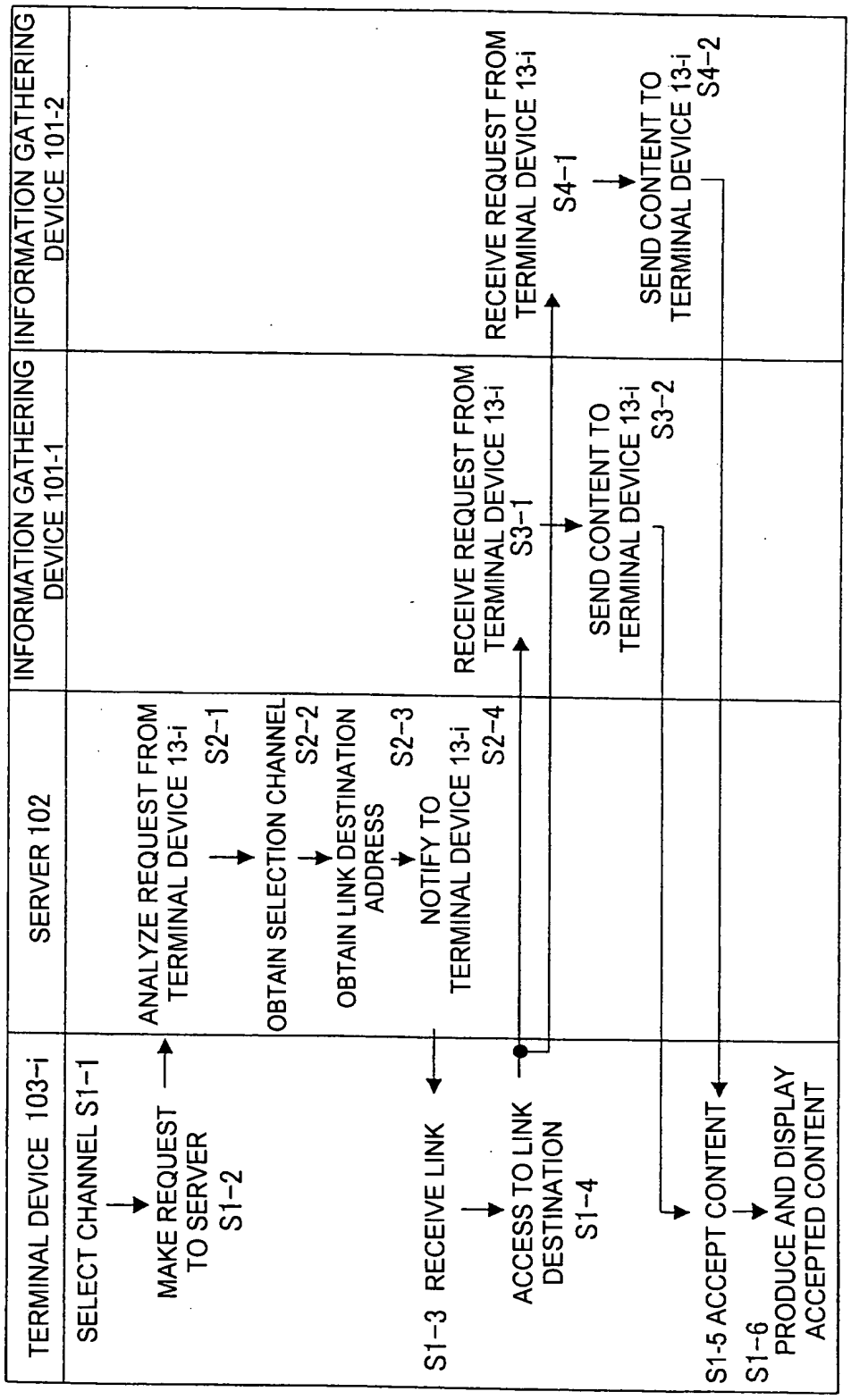

TERMINAL DEVICE 103-i
SERVER 102
INFORMATION GATHERING DEVICE 101-1
INFORMATION GATHERING DEVICE 101-2
SELECT CHANNEL S1-1
MAKE REQUEST TO SERVER S1-2
ANALYZE REQUEST FROM TERMINAL DEVICE 13-i S2-1
OBTAIN SELECTION CHANNEL S2-2
OBTAIN LINK DESTINATION ADDRESS S2-3
NOTIFY TO TERMINAL DEVICE 13-i S2-4
S1-3 RECEIVE LINK
ACCESS TO LINK DESTINATION S1-4
RECEIVE REQUEST FROM TERMINAL DEVICE 13-i S3-1
SEND CONTENT TO TERMINAL DEVICE 13-i S3-2
RECEIVE REQUEST FROM TERMINAL DEVICE 13-i S4-1
SEND CONTENT TO TERMINAL DEVICE 13-i S4-2
S1-5 ACCEPT CONTENT
S1-6 PRODUCE AND DISPLAY ACCEPTED CONTENT

FIG.9

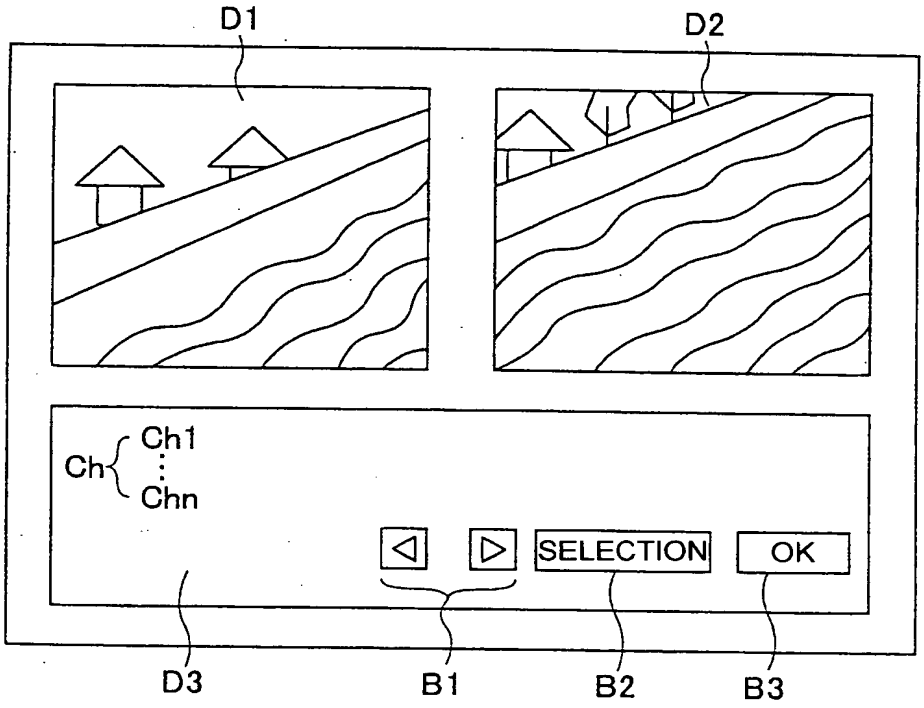


FIG.10

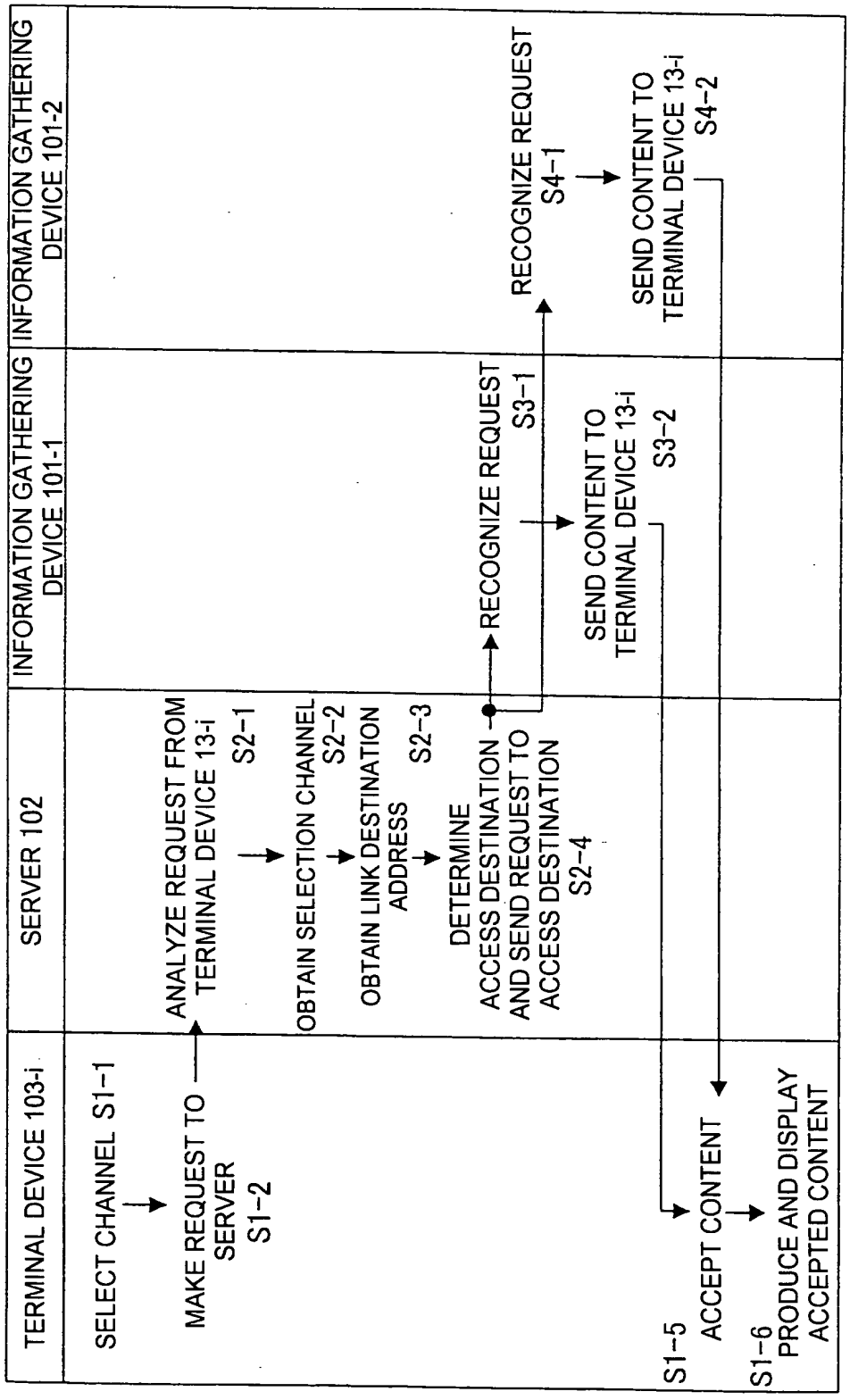

TERMINAL DEVICE 103-i
SERVER 102
INFORMATION GATHERING DEVICE 101-1
INFORMATION GATHERING DEVICE 101-2
SELECT CHANNEL S1-1
MAKE REQUEST TO SERVER S1-2
ANALYZE REQUEST FROM TERMINAL DEVICE 13-i S2-1
OBTAIN SELECTION CHANNEL S2-2
OBTAIN LINK DESTINATION ADDRESS S2-3
DETERMINE ACCESS DESTINATION AND SEND REQUEST TO ACCESS DESTINATION S2-4
RECOGNIZE REQUEST S3-1
SEND CONTENT TO TERMINAL DEVICE 13-i S3-2
RECOGNIZE REQUEST S4-1
SEND CONTENT TO TERMINAL DEVICE 13-i S4-2
S1-5 ACCEPT CONTENT
S1-6 PRODUCE AND DISPLAY ACCEPTED CONTENT

FIG.11

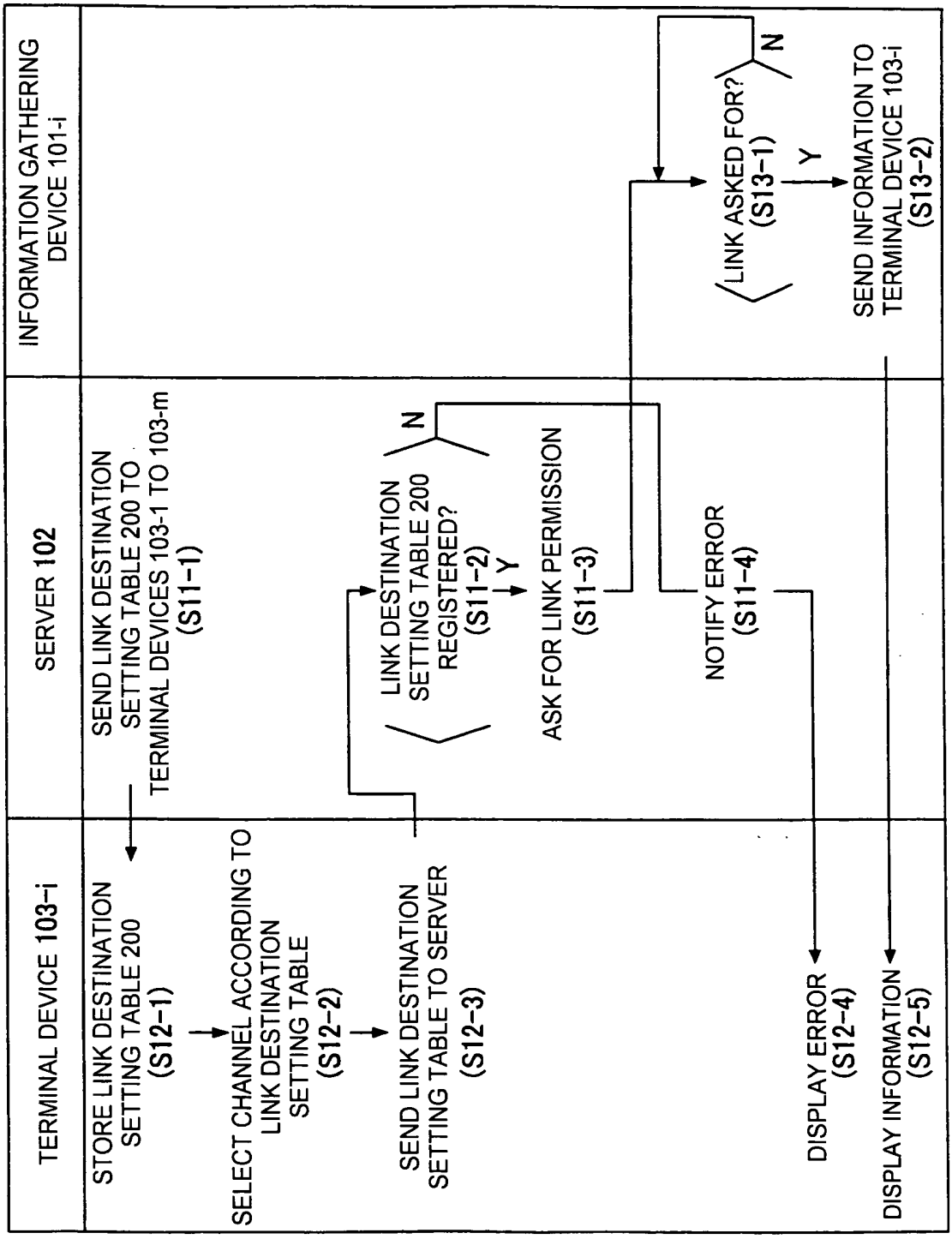

TERMINAL DEVICE 103-i
SERVER 102
INFORMATION GATHERING DEVICE 101-i
STORE LINK DESTINATION SETTING TABLE 200 (S12-1)
SEND LINK DESTINATION SETTING TABLE 200 TO TERMINAL DEVICES 103-1 TO 103-m (S11-1)
SELECT CHANNEL ACCORDING TO LINK DESTINATION SETTING TABLE (S12-2)
SEND LINK DESTINATION SETTING TABLE TO SERVER (S12-3)
LINK DESTINATION SETTING TABLE 200 REGISTERED? (S11-2)
N
Y
ASK FOR LINK PERMISSION (S11-3)
NOTIFY ERROR (S11-4)
LINK ASKED FOR? (S13-1)
N
Y
SEND INFORMATION TO TERMINAL DEVICE 103-i (S13-2)
DISPLAY ERROR (S12-4)
DISPLAY INFORMATION (S12-5)

FIG.12

200

CHANNEL	GENRE CODE	URL
ch1	0	http://www.aaa.jp/
ch2	0	http://www.bbb.jp/
ch3	0	http://www.ccc.jp/
ch4	1	http://www.ddd.jp/
⋮	⋮	⋮
chN	1	http://www.xxx.jp/

FIG.13

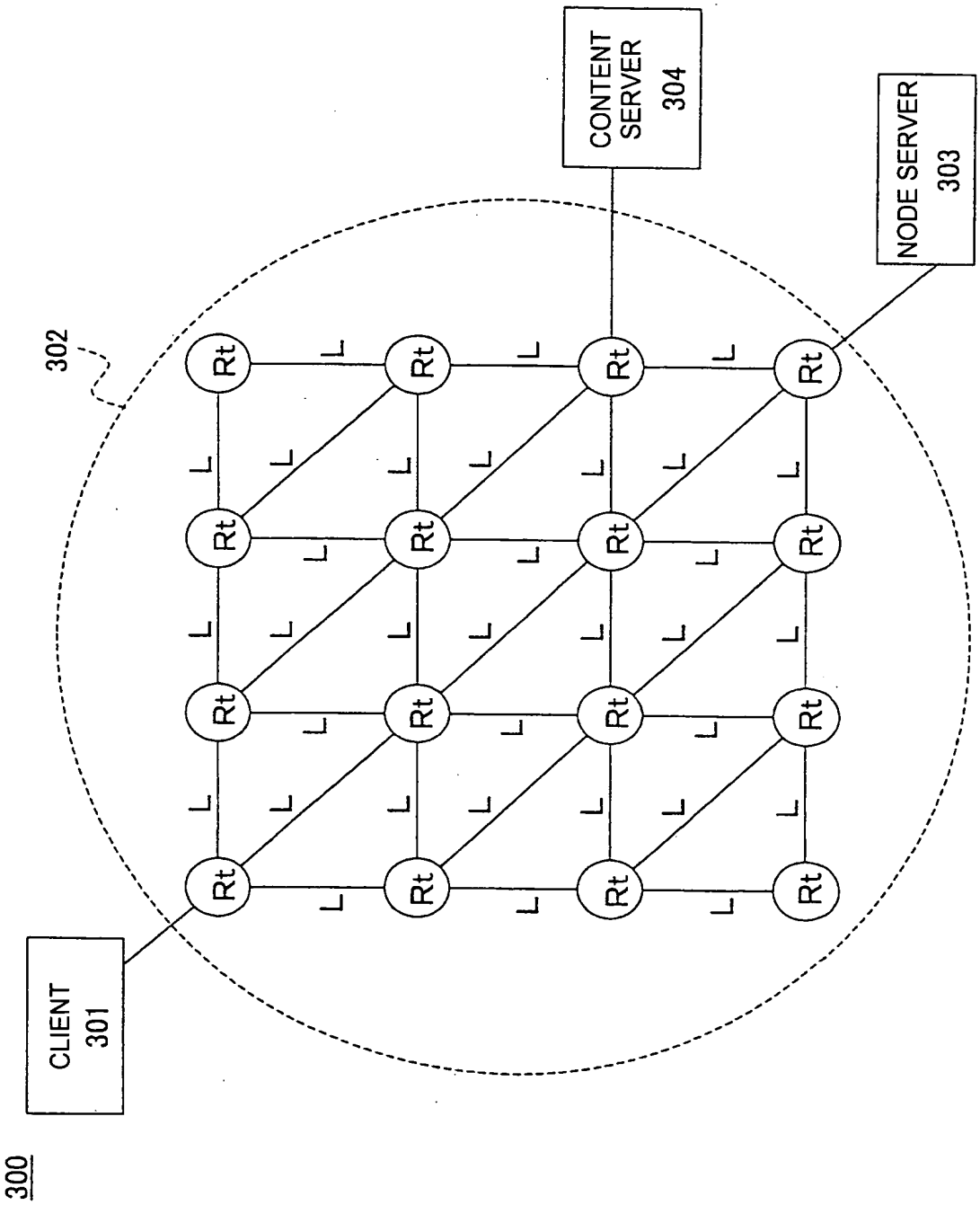


FIG.14

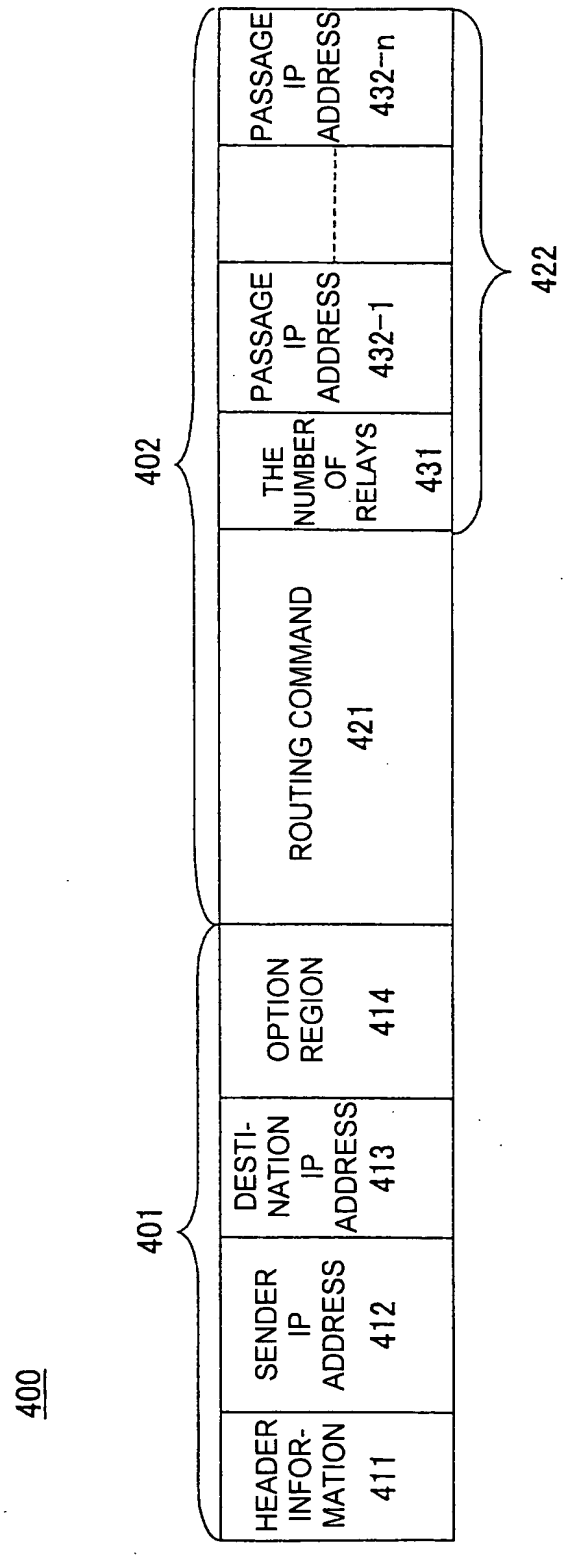

400
401
402
422
HEADER INFOR-MATION 411
SENDER IP ADDRESS 412
DESTI-NATION IP ADDRESS 413
OPTION REGION 414
ROUTING COMMAND 421
THE NUMBER OF RELAYS 431
PASSAGE IP ADDRESS 432-1
PASSAGE IP ADDRESS 432-n

FIG.15

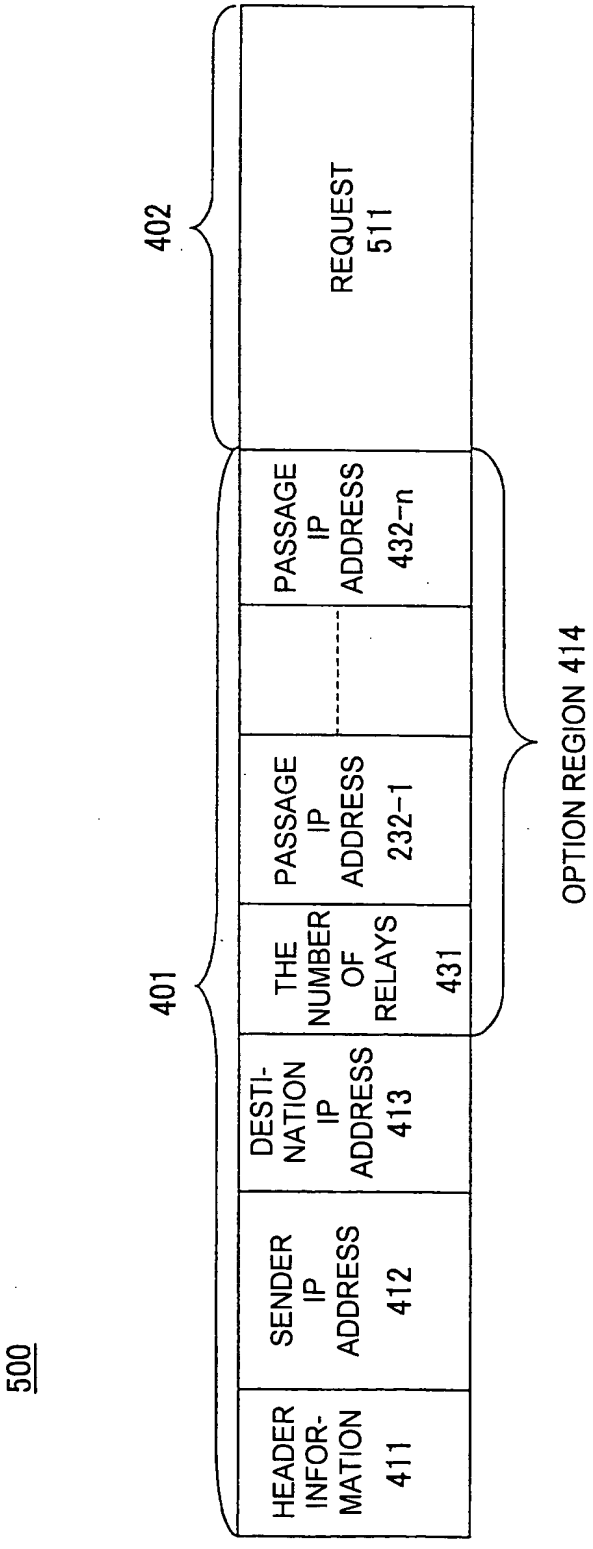

500
401
402
HEADER INFOR-MATION 411
SENDER IP ADDRESS 412
DESTI-NATION IP ADDRESS 413
THE NUMBER OF RELAYS 431
PASSAGE IP ADDRESS 232-1
PASSAGE IP ADDRESS 432-n
REQUEST 511
OPTION REGION 414

FIG.16

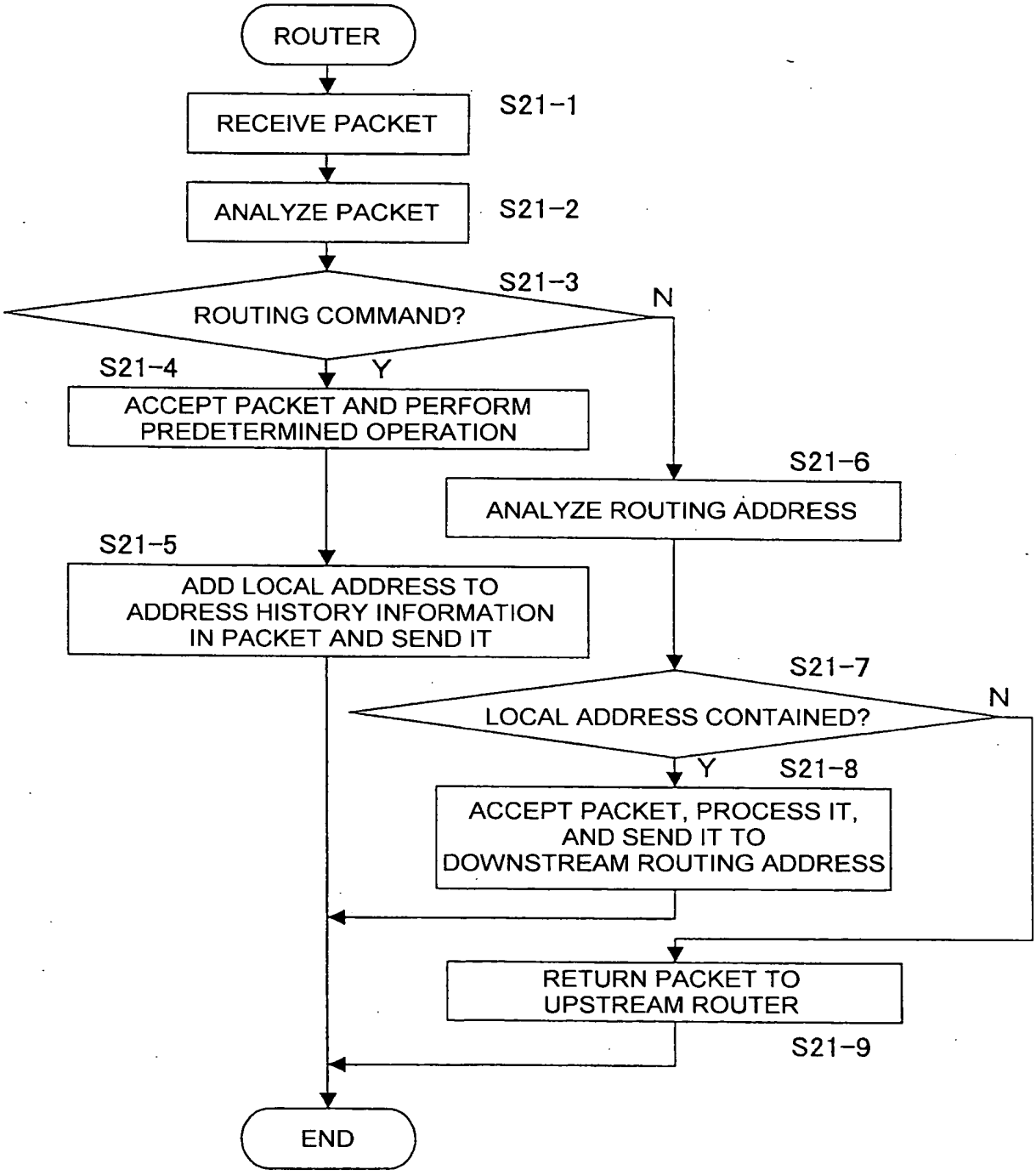

ROUTER
RECEIVE PACKET
S21-1
ANALYZE PACKET
S21-2
S21-3
ROUTING COMMAND?
N
Y
S21-4
ACCEPT PACKET AND PERFORM PREDETERMINED OPERATION
S21-6
ANALYZE ROUTING ADDRESS
S21-5
ADD LOCAL ADDRESS TO ADDRESS HISTORY INFORMATION IN PACKET AND SEND IT
S21-7
LOCAL ADDRESS CONTAINED?
N
Y
S21-8
ACCEPT PACKET, PROCESS IT, AND SEND IT TO DOWNSTREAM ROUTING ADDRESS
RETURN PACKET TO UPSTREAM ROUTER
S21-9
END

FIG.17

600

ROUTE NAME	IP ADDRESS		
R1	A11	...	A1m
:	:	:	:
Rn	An1	...	Anm

FIG.18

700

ROUTE	TIME PERIOD	RATE	RESPONSE TIME
R1	T11～T12	S1	Tres1
:	:	:	:
Rn	Tn1～Tn2	Sn	Tresn

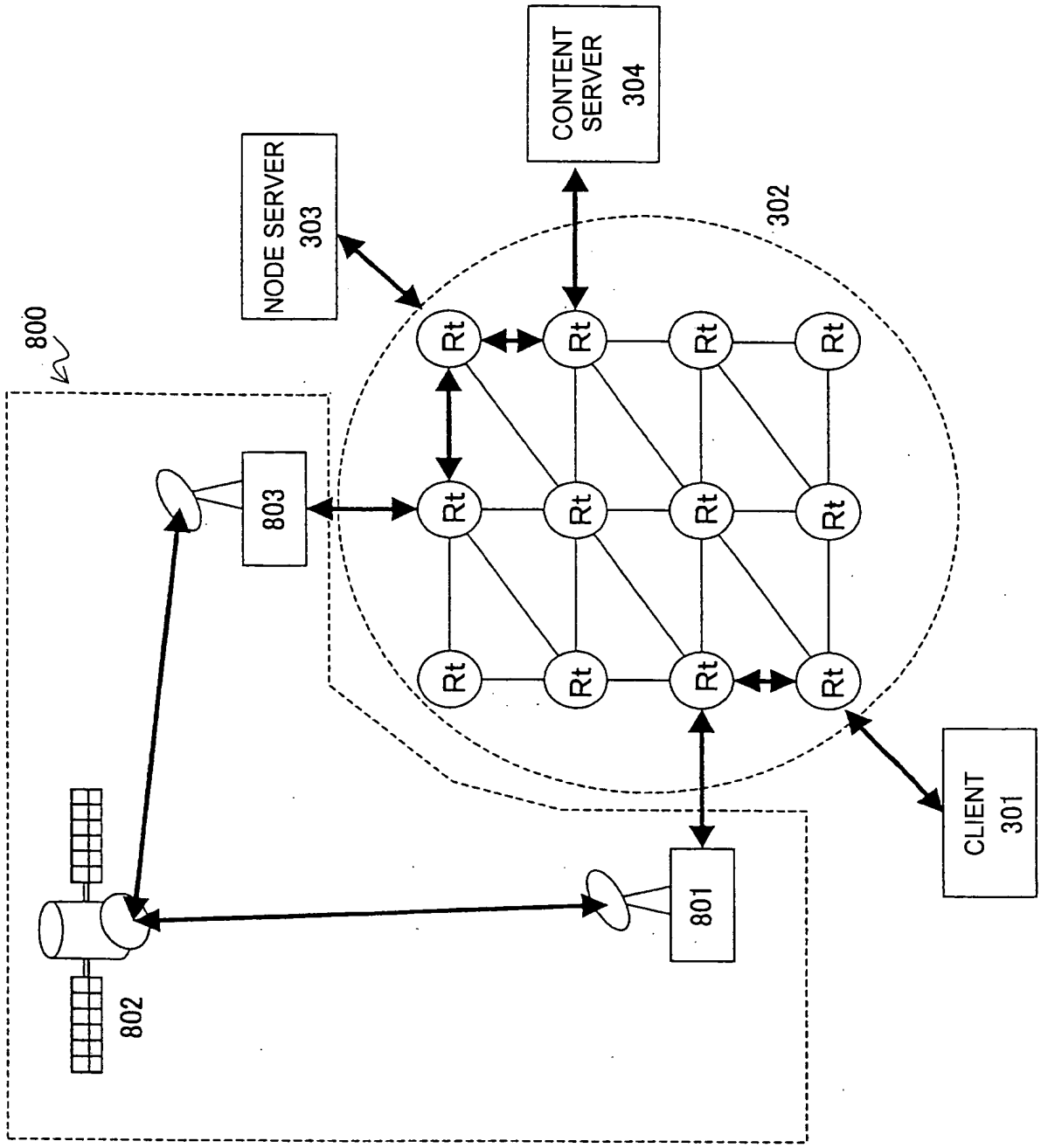

800
NODE SERVER
303
CONTENT
SERVER
304
302
Rt
803
801
802
CLIENT
301

FIG.19

FIG.20

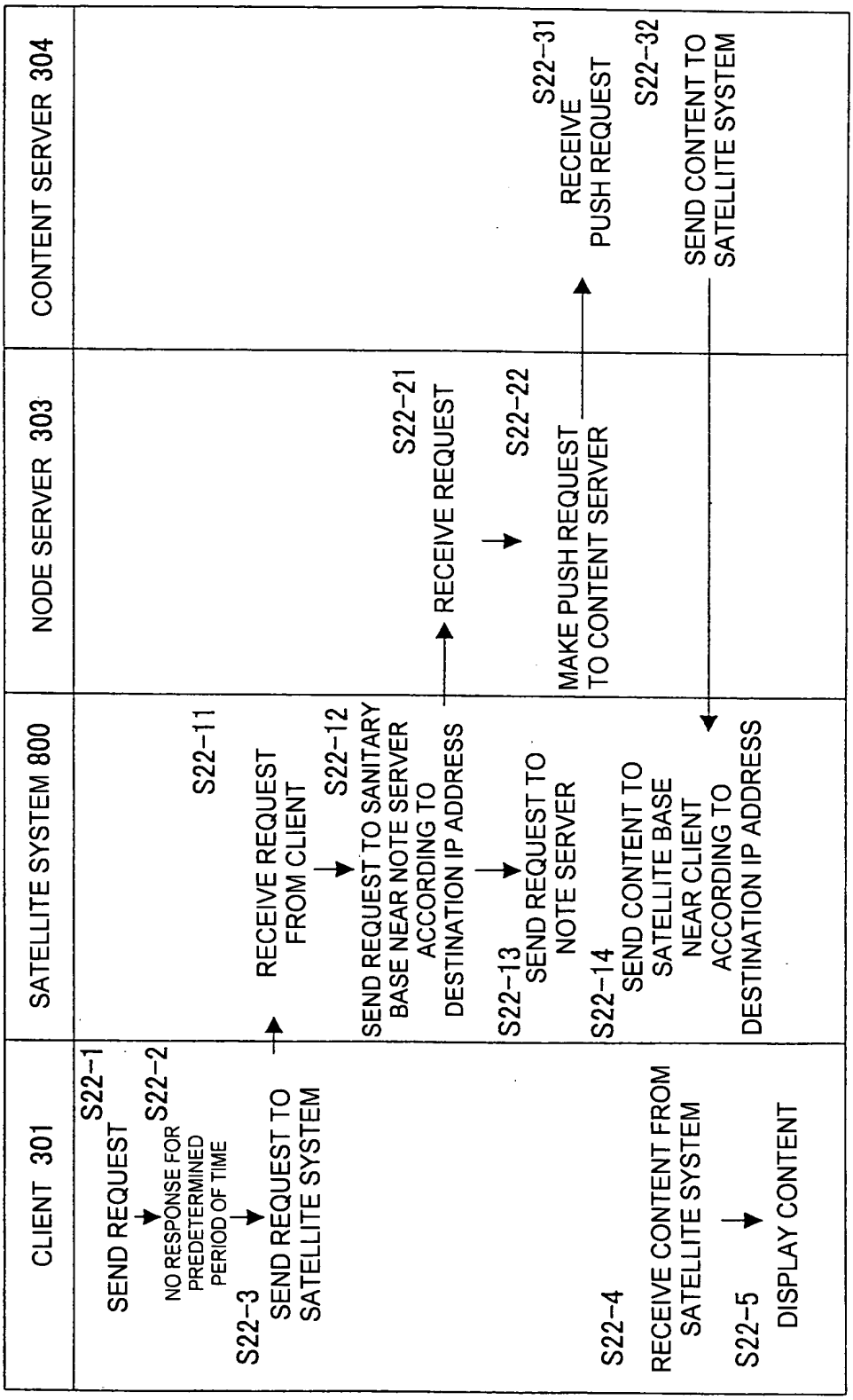

CLIENT 301
SATELLITE SYSTEM 800
NODE SERVER 303
CONTENT SERVER 304
S22-1
SEND REQUEST
S22-2
NO RESPONSE FOR PREDETERMINED PERIOD OF TIME
S22-3
SEND REQUEST TO SATELLITE SYSTEM
S22-11
RECEIVE REQUEST FROM CLIENT
S22-12
SEND REQUEST TO SANITARY BASE NEAR NOTE SERVER ACCORDING TO DESTINATION IP ADDRESS
S22-21
RECEIVE REQUEST
S22-22
MAKE PUSH REQUEST TO CONTENT SERVER
S22-31
RECEIVE PUSH REQUEST
S22-13
SEND REQUEST TO NOTE SERVER
S22-14
SEND CONTENT TO SATELLITE BASE NEAR CLIENT ACCORDING TO DESTINATION IP ADDRESS
S22-32
SEND CONTENT TO SATELLITE SYSTEM
S22-4
RECEIVE CONTENT FROM SATELLITE SYSTEM
S22-5
DISPLAY CONTENT

FIG.21

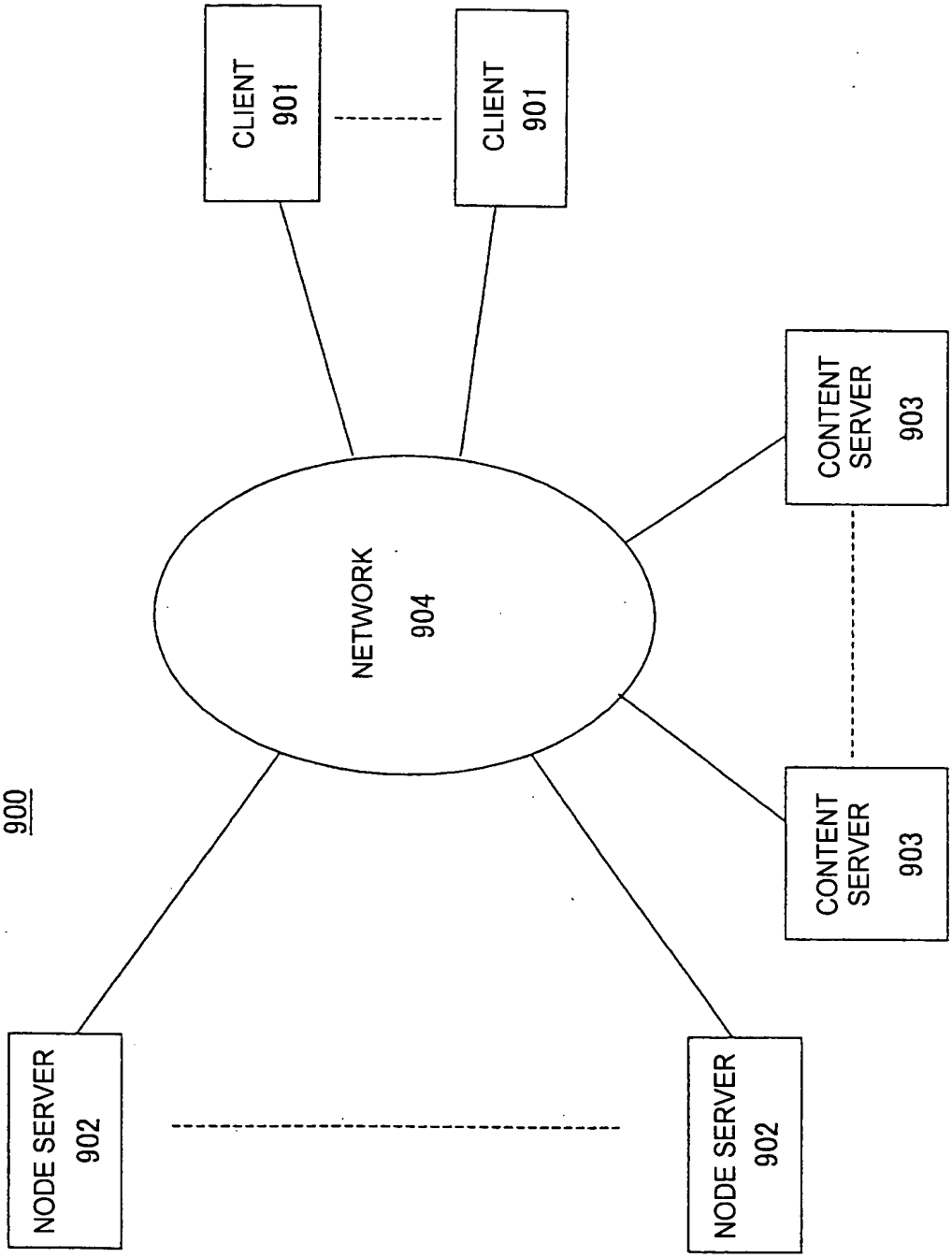

900
CLIENT 901
CLIENT 901
NETWORK 904
CONTENT SERVER 903
CONTENT SERVER 903
NODE SERVER 902
NODE SERVER 902

FIG.22

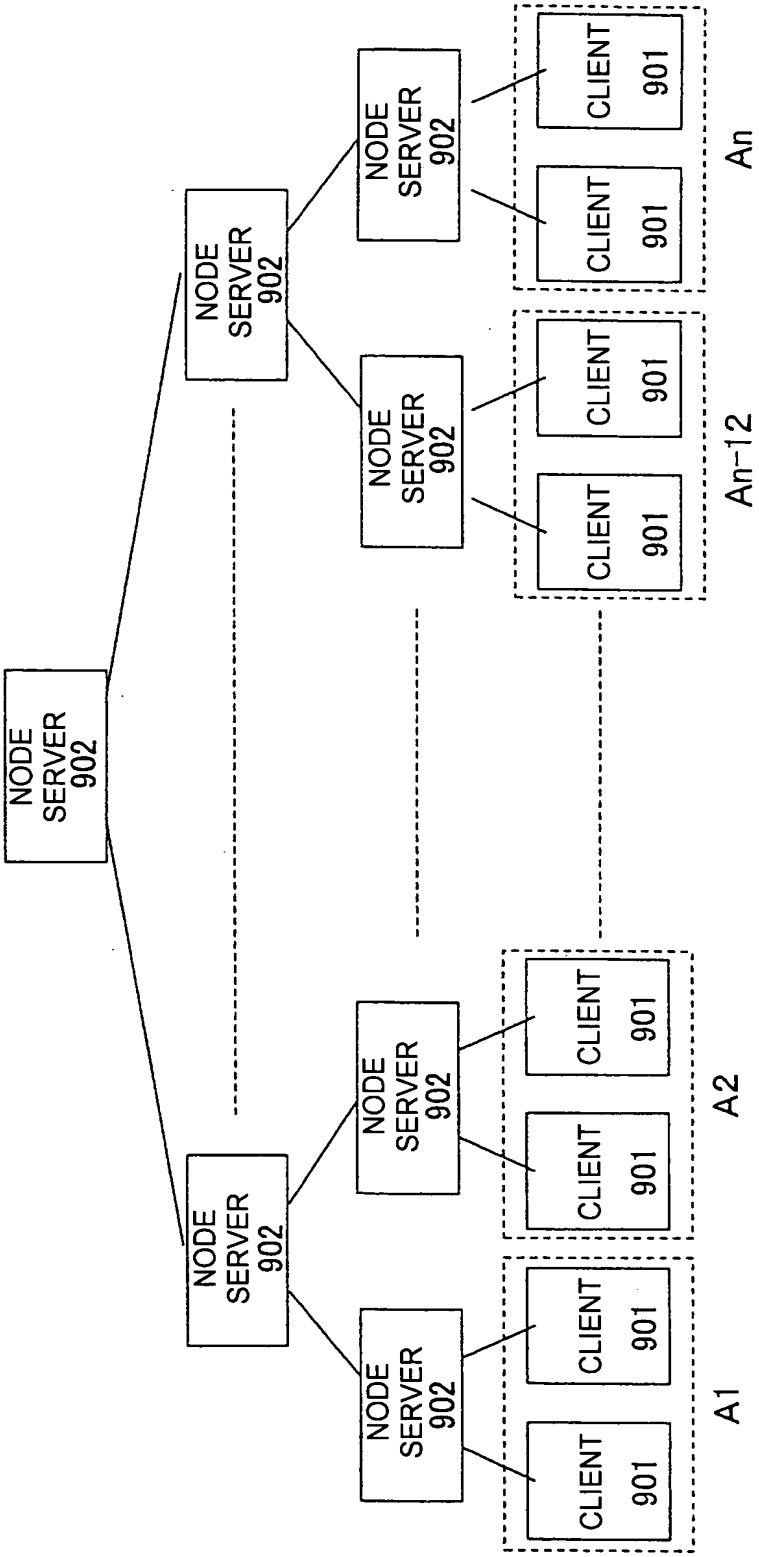

NODE SERVER 902
NODE SERVER 902
NODE SERVER 902
NODE SERVER 902
NODE SERVER 902
NODE SERVER 902
CLIENT 901
CLIENT 901
CLIENT 901
CLIENT 901
CLIENT 901
CLIENT 901
CLIENT 901
CLIENT 901
CLIENT 901
A1
A2
An-12
An

FIG.23

911

		CONTENT C1	CONTENT C2	CONTENT C3	...
CHANNEL ch1	CONTENT SERVER	URL11	URL12	URL13	...
	CACHE TABLE ADDRESS	adr11	adr12 (INVALID ADDRESS)	adr13	...
	NODE SERVER	false	L2	false	...
CHANNEL ch2	CONTENT SERVER	URL21	URL22	URL23	...
	CACHE TABLE ADDRESS	adr21 (INVALID ADDRESS)	adr22	adr23	...
	NODE SERVER	L21	false	false	...
:	:	:	:	:	

10/511631

FIG.24

912

ADDRESS	DIRECTORY NAME	VALIDITY	TIME STAMP
adr1	d1	×	—
:	:	:	:
adr11	d11	○	t11
:	:	:	:

FIG.25

913

RANK	CONTENT	LINK DESTINATION	NUMBER OF RETRIEVALS	TIME	VOLUME
1	C1	L1 (http://www.fff)	h1	T1	10M
2	C2	L2 (http://www.ggg)	h2	T2	20M
3	C3	L3	h3	T3	10M
:	:	:	:	:	:

FIG.26

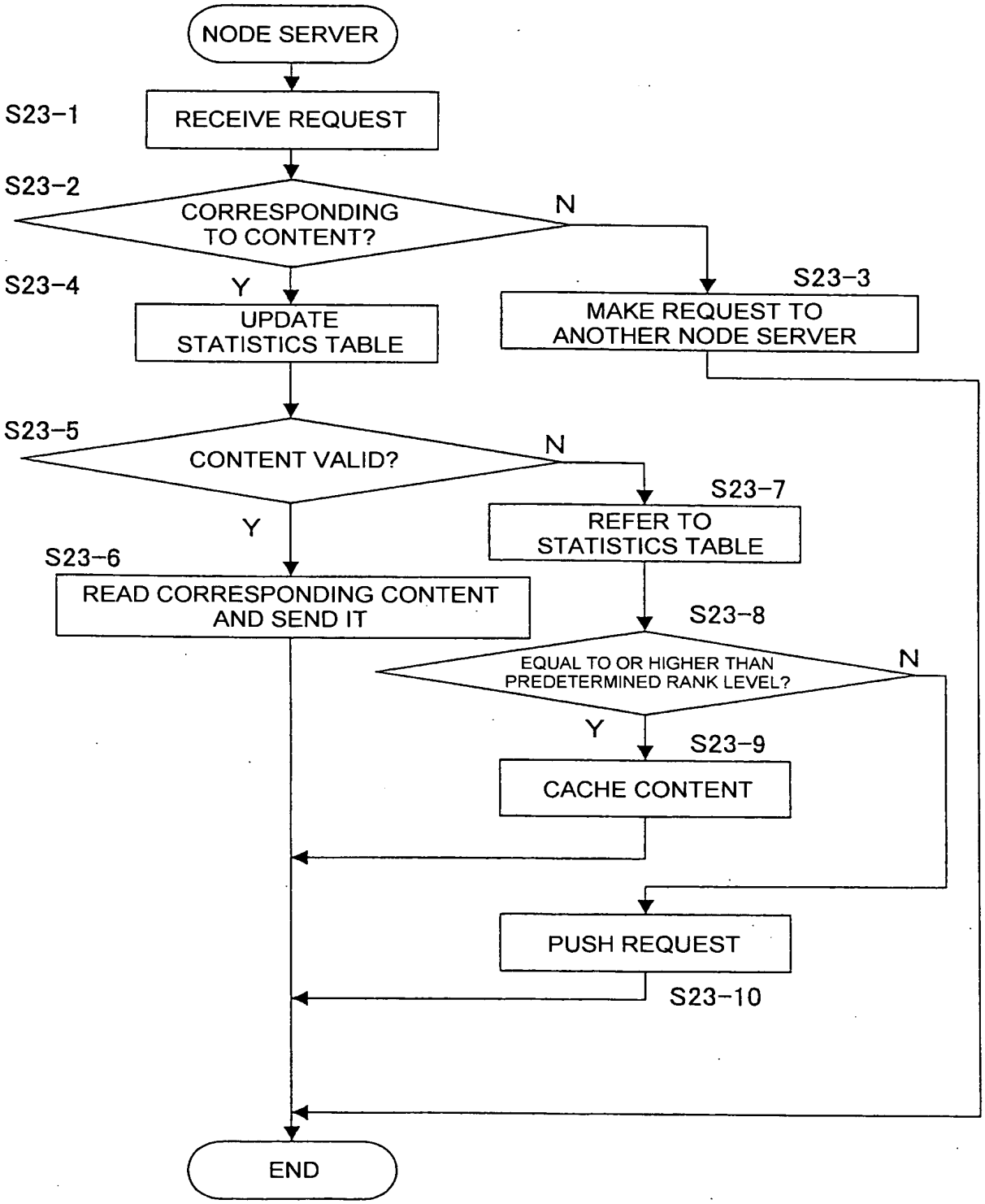
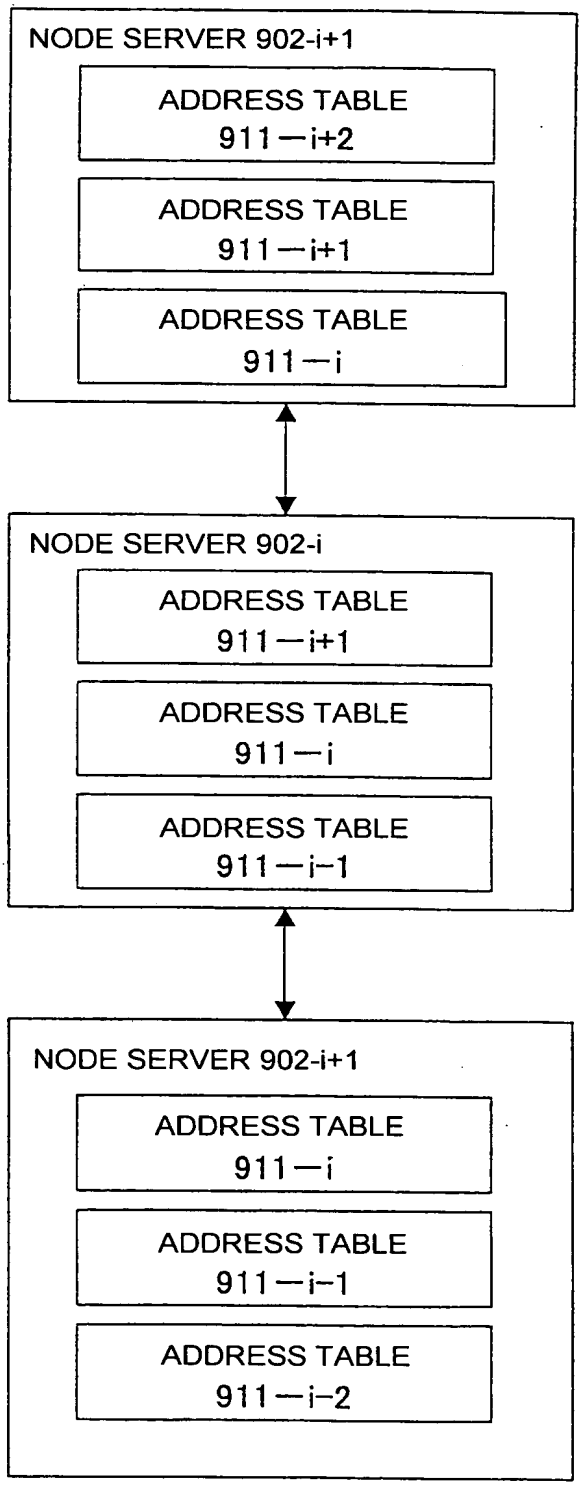

NODE SERVER
S23-1
RECEIVE REQUEST
S23-2
CORRESPONDING TO CONTENT?
N
S23-3
MAKE REQUEST TO ANOTHER NODE SERVER
Y
S23-4
UPDATE STATISTICS TABLE
S23-5
CONTENT VALID?
N
S23-7
REFER TO STATISTICS TABLE
Y
S23-6
READ CORRESPONDING CONTENT AND SEND IT
S23-8
EQUAL TO OR HIGHER THAN PREDETERMINED RANK LEVEL?
N
Y
S23-9
CACHE CONTENT
PUSH REQUEST
S23-10
END

FIG.27


NODE SERVER 902-i+1
ADDRESS TABLE 911—i+2
ADDRESS TABLE 911—i+1
ADDRESS TABLE 911—i
NODE SERVER 902-i
ADDRESS TABLE 911—i+1
ADDRESS TABLE 911—i
ADDRESS TABLE 911—i-1
NODE SERVER 902-i+1
ADDRESS TABLE 911—i
ADDRESS TABLE 911—i-1
ADDRESS TABLE 911—i-2